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ABSTRACT

The paper, originally given at a 1986 Ethnic and Multicultural Symposium, examines implications of research on assessment procedures for limited-English-proficient (LEP) handicapped students. The discussion includes a report on a longitudinal study to identify techniques that effectively distinguish between LEP students who are handicapped and those exhibiting characteristics of second language acquisition. The 3-year study of oral language assessment for Hispanic LEP kindergarten students (N=120); classified as either speech and language handicapped, learning disabled, nonhandicapped underachievers, or nonhandicapped achievers; is exploring the relationship among various measures of English and Spanish oral language proficiency (global, pragmatic, and discrete) to special education placement decisions as well as to student achievement. Expected outcomes include empirically supported recommendations as to the best oral language measure(s) for use in diagnosis of LEP students. The paper reviews the complexities of assessing the language skill of LEP students as well as research issues related to the diagnosis of speech and language handicaps in bilingual children. (DB)

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Language Assessment of Hispanic Learning Disabled and Speech and Language Handicapped Students: Research in Progress

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Current research (Holtzman, Ortiz, & Wilkinson, 1986; Ortiz et al. 1985; Ortiz, Garcia, Wheeler, & Maldonado-Colon, 1986) suggests that accurately identifying handicapping conditions among limited-English-proficient students is difficult. Available assessment procedures and existing procedural safeguards do not appear to provide diagnosticians and speech and language therapists adequate information to distinguish characteristics of second language learners from those of handicapped students. This lack of appropriate assessment data, particularly regarding students' native language and English language proficiency, may lead to inaccurate placement of limited-English-proficient children in special education.

This article examines issues involved in the *assessment of language skills* of culturally and linguistically different students who are referred for special education, and it explores the use of pragmatic criteria for distinguishing a "true" handicapping condition from a language difference among limited-English-proficient (LEP) students. The discussion of issues dealing with the special education referral of LEP students suspected of having learning disabilities or speech and language disorders is followed by a brief description of an ongoing 3–year longitudinal study which attempts to address some of these issues through empirical means. This study, conducted by the Handicapped Minority Research Institute on Language Proficiency at The University of Texas at Austin, focuses on language assessment procedures which can be used to evaluate LEP Hispanic students suspected of being either communication disordered or learning disabled. The major purpose of this research is to identify the best techniques, or combination of techniques, which effectively distinguish between LEP students who are truly handicapped and those who are merely exhibiting characteristics of normal second language acquisition. Of specific interest is whether the use of pragmatic criteria is a better alternative than the use of standardized language assessment instruments for distinguishing normal from abnormal language acquisition among language minority students.

INCIDENCE OF HANDICAPPING CONDITIONS AMONG HISPANICS

Patterns of representation of minority children in special education programs have received increasing attention in the literature (Dew, 1984; Manni, Winikur, & Keller, 1980; Mercer, 1976; Ortiz & Yates, 1983; Tucker, 1980). Examination of placement trends has raised concerns regarding the accuracy of the diagnostic process in placing language minorities in

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special education and the effectiveness of intervention programs selected to provide these students with appropriate educational opportunities.

In 1978, 74% of Hispanic students in special education were in programs for the learning disabled (44%) or the speech/language impaired (30%) (U.S. GAO, 1981). In Texas, Ortiz and Yates (1983) found that representation of Hispanics in speech and language therapy was below national estimates of prevalence (2.4% as opposed to 3.2%) but that there was a serious overrepresentation of Hispanic students in LD programs. Ortiz and Yates indicated that while procedural safeguards were found in policy, legislation, and judicial decisions, there was a lack of guidelines to effectively implement these safeguards and a lack of bilingual assessment personnel and appropriate instruments and procedures to ensure accurate identification of handicapping conditions.

While both national and state incidence figures of handicapping conditions for ethnic/racial groups are available, the prevalence of exceptionality among limited-English-proficient students is more difficult to determine. No national prevalence studies are currently available for this population. Similarly, state education agencies and local school districts typically do not report special education enrollments by students' language proficiency level. However, since the number of language minority students is dramatically increasing, with Hispanics constituting the largest segment of this population, educators need to understand better the interaction of language proficiency and handicapping conditions (Ortiz & Yates, 1983).

ISSUES RELATED TO LANGUAGE ASSESSMENT

Language minority children are frequently referred to special education on the basis of behaviors which do not fit the expectations of educators and are placed, not because they are handicapped, but because placement committees erroneously interpret linguistic, cultural, economic, or other background characteristics as deviant (Ortiz & Yates, 1983; 1984). For example, the literature documents characteristics of second language learners and suggests that the processes involved in learning a second language are very similar to those involved in native language acquisition (Celce-Murcia, 1978; Dulay, Burt, & Krashen, 1982; Krashen, 1982; Oller, 1983). There is also evidence to suggest that many of the characteristics of children normally acquiring a second language are similar to behaviors considered symptomatic of language or learning disabilities (Damico, Oller, & Storey, 1983; Mattes & Omark, 1984; Ortiz & Maldonando-Colon, 1986). Behaviors such as poor comprehension, limited vocabulary, or grammatical and syntactical errors may signify handicapping conditions for some students but, for others, reflect a lack of English proficiency.

It is possible, then, that special education referrals result from teachers' lack of understanding of how children acquire English as a second language. Teachers' perceptions that children are handicapped are confirmed when speech pathologists and diagnosticians rely on assessment procedures that focus on students' mastery of surface structures of language (e.g., tests of phonology, syntax, grammar, etc.), rather than on their ability to understand and communicate meaning (e.g., pragmatic criteria). While one could argue that Hispanic students profit from the individualized instruction provided by specially trained teachers and therapists, the placement of normal, as opposed to handicapped, students in special education decreases the effectiveness of appraisal and instructional personnel available to serve the truly handicapped.

Native Language Assessment

Analysis of speech and language characteristics is problematic when the child is limited-English-proficient. It is difficult to determine, for example, whether the child distorts or omits certain features of English syntax because of an articulation disorder or whether the error is developmental in nature and indicates that the student is in the process of normal second language acquisition (Damico, Oller, & Storey, 1983). Since speech and language disorders

affect common language processes which underlie different surface structures of the languages spoken by the child (Cummins, 1982; 1984), it is not possible for a bilingual child to have a language disorder in one language and not in the other (Juarez, 1983; Ortiz, 1984). This suggests that diagnostic criteria must include evidence that the disorder occurs in the native language, not only in English.

In a similar vein, a learning disability occurs because of some type of abnormal cognitive process or deficit; if this deficit is demonstrated in English, it must also be evident in the native language. For LD students, it is important to assess literacy-related aspects of language proficiency in addition to the assessment of interpersonal communication skills. It is critical, for example, to determine whether the LEP student has adequate language proficiency to profit from academic instruction delivered solely in English. Cummins (1984) suggests that many LEP students are placed in special education because educators fail to distinguish between basic interpersonal communication skills and academic language proficiency. On the surface, the child appears to speak effectively with his/her peers but has not developed sufficient levels of academic language proficiency to achieve success in a monolingual English classroom.

Traditional Language Assessment Approaches

According to Damico (1985), the tests most frequently used by special education appraisal personnel to identify speech and language disorders or handicapping conditions are not sensitive to functional aspects of language because of their emphasis on correctness of linguistic structures. He summarizes the major problems with traditionally used tests of discrete language skills (e.g., measures of vocabulary or phonology) as follows:

1. Traditional assessment instruments are based on the assumption that language can be separated into various components (i.e., phonology, morphology, syntax, grammar, and vocabulary) and that these components can be isolated and assessed independently.
2. Traditional approaches tend to give more weight to syntax because mastery of syntactical structures is considered to be the best indicator of increasing linguistic proficiency (Dulay, Hernandez-Chavez, & Burt, 1978). The influence of variables such as speaker, intent, and context are virtually ignored.
3. The popularity of discrete point tests may be that they produce scores to describe language performance, a characteristic particularly attractive to assessment personnel charged with demonstrating that children meet eligibility criteria for special education placement. Comparing performance against cut-off scores for eligibility simplifies decision-making processes. However, high error rates on discrete point tests may inaccurately be attributed to a handicapping condition and may result in the placement of second language learners in special education programs.
4. A key characteristic of traditional assessment instruments is that they are norm referenced. An individual child's performance can be compared to that of a particular chronological age or peer group. This creates some problems, however, for older students because the majority of available assessment instruments are normed on younger children. For older students, norms reflect acquired knowledge or academic abilities rather than oral language skills. Consequently, students are more likely to be classified as learning disabled and interventions developed without adequate understanding of more basic language needs.
5. Norm referenced tests offer the advantage of standardized testing procedures which allow comparison of an individual's performance with peers over time, in various testing situations, and with different examiners. In the case of language testing, however, standardized procedures can introduce a tremendous amount of artificiality in communication (Leonard, Prutting, Perozzi, & Berkley, cited in Damico, 1985). This probably explains the discrepancies which are common when skills measured by instruments and those observed in spontaneous conversation are compared.

The most serious criticism of traditional language assessment instruments is that they do not accurately represent spontaneous communication. Because language consists of some aspect of *content* or meaning that is coded or represented by linguistic *form* for some purpose or *use* in a particular environment (Bloom & Lahey, 1978), the initial focus in language assessment should be on how these three components *interact*. Focusing on this interaction results in linguistic description rather than on quantification of correct or incorrect responses and is, consequently, more descriptive of a child's performance in natural communication.

ASSESSMENT OF PRAGMATIC SKILLS

There has been a recent shift in the area of language assessment to a greater emphasis on evaluation of pragmatic skills. Damico (1985) recommends the use of procedures which allow analysis of language data holistically and which sample communication interactions rather than responses on tests of mastery of surface structures of the language. He developed a procedure, Clinical Discourse Analysis, which incorporates clinical observation and analysis of data obtained from conversation samples to identify behavior patterns that interfere with interpersonal communication. He uses pragmatic criteria which include, for example, linguistic nonfluencies, nonspecific vocabulary, poor topic maintenance, and inappropriate responses.

Damico and Oller (1980) conducted a study which indicated that pragmatic criteria were effective in aiding teachers to accurately identify language disordered students. Teachers using these criteria referred significantly more children for testing, but the accuracy of their referrals was significantly greater, as indicated by the number of children ultimately judged by speech pathologists to be eligible for speech and language therapy. In a second study, Damico, Oller, and Storey (1983) used the same behaviors (pragmatic and discrete point) as predictors of language-based academic problems in Spanish-English bilingual children. The results again indicated that the inclusion of pragmatic and discrete-point behaviors together resulted in a more effective index of language/learning difficulties as measured by academic and social progress over one academic year.

A LONGITUDINAL STUDY OF LANGUAGE ASSESSMENT OF HANDICAPPED LEP HISPANIC STUDENTS

In October 1983, the Department of Special Education, College of Education, at The University of Texas at Austin established a Handicapped Minority Research Institute on Language Proficiency (HMRI) to conduct research specific to exceptional limited-English-proficient (LEP) and bilingual students (English/Spanish). The Institute, funded for a 5–year period by the United State Department of Education, Office of Special Education and Rehabilitative Services, is exploring the interaction of language proficiency and handicapping conditions, with a focus on Hispanic students who are learning disabled, and/or communication disordered.

The Handicapped Minority Research Institute is currently conducting a 3–year longitudinal study of oral language assessment for Hispanic LEP kindergarten students who have been classified as either speech and language handicapped (SLH) or learning disabled (LD). The primary focus of this research is to explore the relationship among various measures of English and Spanish oral language proficiency (global, pragmatic, and discrete) to special education placement decisions made by educators for SLH and LD limited-English-proficient students. Of secondary interest is the relationship of each of these measures to student achievement in the English and Spanish languages.

Subjects

The study involves a sample of 120 handicapped and nonhandicapped Hispanic LEP kindergarten students, with 30 in each of four categories: (a) speech and language handicapped, (b) learning disabled, (c) nonhandicapped achievers, and (d) nonhandicapped underachievers. Sites for data collection include two Texas school districts with bilingual and special education programs, with concentrations of Hispanic students (over 50%), and with relatively large student enrollment (33,000 for one school district; over 50,000 for the other school district). Identification of speech and language handicapped students and learning disabled students was based on each district's assessment and placement of LEP students in their respective classification. Identification of "achieving" and "underachieving" students was based on teachers' sorting of their LEP students according to those who had/had not mastered 80% of their instructional objectives, or the state-mandated "essential elements" for kindergarten. Teachers were directed to make their judgements based on students' mastery of language arts, mathematics, science, and social studies objectives in English and/or Spanish.

Instrumentation

Language assessment procedures used include the pragmatic and surface structure analyses of elicited English and Spanish conversation samples; measures of overall English and Spanish language proficiency using the Language Assessment Scales (LAS) (De Avila & Duncan, 1981); and various measures of discrete surface structures such as phonology, vocabulary, and grammar, which are commonly used by local school districts to assess students referred to special education. Academic achievement, as measured by the Woodcock-Johnson Psycho-Educational Battery (English) and the Bateria Woodcock Psico-Educativa en Espanol (Spanish), was also assessed.

Language Samples. Two 30–minute language samples (one in English and one in Spanish) were elicited by trained bilingual interviewers in natural conversations with each child. Two separate 15–minute conversations constituted the sample for each language. Tapes of these conversations were transcribed and subsequently segmented into utterances, using procedures adapted from Barrie-Blackey, Musselwhite and Rogister (1978). Approximately 180 utterances in each language were then analyzed using the pragmatic criteria outlined by Damico, Oller, and Storey, 1983 (see Figure 1). A second set of analyses was also conducted on these same samples to determine the child's mastery of certain morpho/syntactic surface structures. The Developmental Sentence Score (DSS) classification system developed by Lee (1974) was used for analysis of the English samples and the Developmental Assessment of Spanish Grammar (DASG), an adapted DSS classification system developed by Toronto (1976), was used for the Spanish samples. These instruments provide procedures to analyze complete, simple to complex sentences utilizing a sample of 50 utterances. The DSS was normed on 200 English-speaking children in the Illinois area, between the ages of 2–0 and 6–11 years. The DASG was standardized on 128 Mexican-American and Puerto Rican Spanish-speaking children between the ages of 3–0 and 6–11 years in Chicago.

Language Assessment Scales (LAS). Fall and Spring LAS (English and Spanish) test scores were obtained for each student from school records. The LAS (DeAvila & Duncan, 1981) is an individually administered, standardized, global oral proficiency measure composed of five subtests: minimal pairs, lexical, phonemes, sentence comprehension, and oral production. Parallel forms of the test in English and Spanish allow for the comparison of students' proficiency in the two languages, both at the discrete level (auditory discrimination, articulation, vocabulary production, and sentence comprehension) and the integrative level (story retelling). In addition, the subtest raw scores are weighted and then added to produce a total score and overall level of proficiency in each language.

Test of Language Development-Primary (TOLD-P). The Test of Language Development-Primary (Newcomer & Hammill, 1982), is an individually administered English test, designed

FIGURE 1

Pragmatic Criteria (Damico, Oller, & Storey, 1983) Used in the Analysis of the HMRI Language Samples

1. *Revisions:* Is the child's speech constantly disrupted by numerous false starts or self-interruptions?
   Example:
   E[a]: "How big is your little brother?"
   C[b]: "He's about half...he comes...he's here on me." (points to shoulder)
2. *Linguistic Nonfluencies:* Is the child's speech characterized by a disproportionately high number of repetitions, pauses, or hesitations?
   Example:
   C: "Sh...She...She comes...She comes at dinner time."
3. *Delays Before Responding:* Is the child's speech characterized by pauses of inordinate length?
   Example:
   E: "And what did you do then?"
   C: "...(pauses approximately 3 seconds) We played tag."
4. *Nonspecific Vocabulary:* Does the child make frequent use of expressions such as "it," "thing," "stuff," "this/that," etc., when the listener has no way of knowing what is being referred to?
   Example:
   E: "So, did you help them move?"
   C: "Yeah...but they were mad cuz I drop it."
   E: "Oh? What did you drop?"
   C: "That thing of Rosa's."
5. *Inappropriate Responses:* Does the child have trouble attending to the examiner's prompts or probes and continue to respond inappropriately?
   Example:
   E: "How do you like school?"
   C: "I don't know him yet."
6. *Poor Topic Maintenance:* Does the child tend to keep changing the topic without providing transitional clues to the examiner?
   Example:
   C: "I went to bed at 6:30."
   E: "That early? You must have had a hard day."
   C: "Yeah."
   E: "What made it such a hard day?"
   C: "The raking. Our teacher said, whoever wins in checkers—I won—goes to McDonalds."
7. *Need for Repetition:* Does the child constantly ask the examiner to repeat questions or information due to a lack of comprehension?
   Example:
   E: "What did the boy do then?"
   C: "..."
   E: "What did the little boy do?"
   C: "Wh...What?"
   E: "What did the little boy do after he saw the bunny rabbit?"

[a]E = Examiner
[b]C = Child

for children aged 4–0 to 8–11 years. The TOLD-P consists of five principal and two supplemental subtests, each of which taps a different component of children's receptive and expressive language abilities. Included are subtests which measure the child's understanding and meaningful use of spoken words, knowledge of differing aspects of grammar, and ability to say words correctly and to distinguish between words that sound the same or different. Results of TOLD-P subtests reveal strengths, weaknesses, and irregularities in specific areas of language development. The TOLD-P was standardized on 1,836 children from 19 states including Texas and one Canadian province.

Test of Auditory Comprehension of Language (TACL): English/Spanish. The Test for Auditory Comprehension of Language (TACL) (Carrow-Woolfolk, 1973) is an individually administered test appropriate for children aged 3–0 to 9–11 years. This test instrument permits the assessment of oral language comprehension without requiring language expression from the child. It measures auditory comprehension of word classes and relations, grammatical morphemes, and elaborated sentence constructions. Although the TACL-R was nationally standardized on 1,003 subjects representing the U.S. population according to age, sex, race, and geographic region, the older version was standardized on only 159 children, aged 2–10 through 7–9 years. A Spanish translation of the TACL exists, but no norms are available. The older version of the TACL (versus TACL-R) was used in the current study because of the availability of a Spanish version of this test. No Spanish version of the TACL-R exists.

Peabody Picture Vocabulary Test-Revised (PPVT-R)/Test de Vocabulario en Imagenes Peabody (TVIP). The Peabody Picture Vocabulary Test-Revised (Dunn & Dunn, 1981) is an individually administered measure of receptive vocabulary designed for children aged 2 1/2 years to adult. When presented with four possible pictorial responses, the child points to the picture that best describes the verbal stimulus. Versions of the test in both English and Spanish are available. Standardization for the PPVT-R was based on a nationally representative sample of children and adolescents, aged 2 1/2 through 18 years, and a sample of adults, aged 19 through 40 years. The Spanish version of the test (TVIP; Dunn, Padilla, Lugo, & Dunn, 1986) was standardized *separately* in Mexico and Puerto Rico. In Mexico, 1,219 preschool, elementary, and high school children, aged 2–6 to 5–11 years, were tested. In Puerto Rico, 1,462 children aged 2–6 to 17–11 years, selected from public and private schools, homes, and nursery schools were tested. Both Mexican and Puerto Rican groups were stratified by age and sex.

Woodcock-Johnson Psycho-Educational Battery/Bateria Woodcock Psico-Educativa En Espanol (Achievement subtests only). The Woodcock-Johnson Psycho-Educational Battery (Woodcock & Johnson, 1977) is an individually administered test designed for children aged 4 years to adult. Achievement subtests used in the current study measure skills needed in the areas of reading, mathematics, and written language. The Woodcock-Johnson was standardized using a national sample of 3,935 K–12 children, but the technical manual provides norms for ages 3 to 63 years. The Bateria Psico-Educativa En Espanol (Woodcock, 1982) is the Spanish version of the Woodcock-Johnson test and was normed in Costa Rica, Mexico, Peru, Puerto Rico, and Spain. The Bateria Woodcock en Espanol is designed for children ages 3–0 to 9–11 years.

Special Education Assessment Data. Special Education records for each SLH and LD student involved in the study provided relevant information regarding the background of these students. Data included referral information; test results from the comprehensive psycho-educational assessment and/or the speech and language evaluation; and Admission, Review, and Dismissal (ARD) Committee placement decisions.

Students' Instructional Schedules. Information regarding the extent of bilingual education instruction offered to each child was also gathered. The homeroom teacher of each student was asked to complete a one-page form indicating the language (English, Spanish, or mixed)

and number of minutes per week of instruction given to each student in Language Arts, Mathematics, Science, and Social Studies.

Status of Year 1 of the Research Study

Data for the first year of the study have been collected and coded, and are currently being analyzed. Correlational analysis will be conducted to establish the degree of interrelatedness between the various oral language measures employed. Multiple discriminate function analyses will establish the power of each oral language proficiency indicator to predict whether LEP subjects are (a) handicapped (SLH or LD) versus nonhandicapped (achievers or underachievers) and (b) achievers versus underachievers versus SLH versus LD. Because of the low incidence of limited-English-proficient students labeled as learning disabled in kindergarten (see also Ortiz et al., 1985), there were no LD subjects in Year 1 of the study. However, grade 1 LEP LD students were included in Year 2. The following are findings to date.

The within-group division of males and females indicated a greater proportion of males for all groups, particularly for language handicapped students. This finding is consistent with literature which indicates that there are more males than females in special education programs. In addition, the majority of the language handicapped students in the sample had been referred in early childhood with the mean age at referral of 5 years and 1 and 1/2 months. Since language handicapped students' problems are manifested in oral communication, abnormal behaviors may be more readily distinguishable than achievement-related problems, the criteria upon which learning disabilities are based.

Instructional Schedules. The students' instructional schedules, as reported by their teachers, indicate that most students receive some instruction in Spanish (either Spanish-only or a combination of English and Spanish) as opposed to English-only instruction. This pattern holds for all groups and across all subject areas. For example, in language arts, 80.7% of achievers, 91.3% of underachievers, and 81.8% of language handicapped students receive mixed instruction and/or Spanish-only instruction. However, in examining the language of instruction received by subjects when only ONE language is used, it is evident that Spanish is used more frequently in language arts, while English is used more frequently in math, science, and social studies. This finding is surprising in that these are LEP students and subjects such as science and social studies have heavy verbal loads. The emphasis given to English and/or mixed language instruction for these kindergarten students raises questions about the implementation of bilingual education programs.

Reasons for Referral. The reasons most frequently cited for referring language handicapped students were: Articulation/language (27.3%), speech (18.2%), articulation (13.6%), stuttering (9.1%), and unintelligible speech (9.1%). In 66.7% of the cases, therapists diagnosed the problem as being articulation and language; in 16.7% of the cases, therapists diagnosed the problem as being articulation, voice, and language. Students were equally spread (5.6%) among the remaining categories: Language-only; articulation/fluency/language; and language/fluency. Severity of the problem was more often judged to be moderate-severe or severe (66.6%), than mild-moderate or moderate (33.3%). The above data show that while the majority of the students may have been referred for either articulation and/or language, recommended services were more often language-related. This finding confirms the results of other research conducted by the HMRI (Ortiz, Garcia, Wheeler, & Maldonado-Colon, 1986). It may be that once the child is administered a comprehensive individual assessment, students referred for articulation problems are also found to be in need of language services. However, since it is common practice to administer an English language development test as part of the assessment process and since language minority students typically perform poorly on these tests, it also may be that the subjects in this study are identified as having a language disorder when in fact they are exhibiting normal characteristics of second language acquisition.

LAS Results. A visual inspection of LAS scores shows that all groups improved in their overall proficiency levels from fall 1985 testing to spring 1986 testing in both English and Spanish.

In the fall, students' Spanish proficiency levels were higher than their English levels. This linguistic advantage was maintained when the students were retested in the spring. In both fall and spring, achievers consistently scored higher than underachievers, who scored higher than or equal to language handicapped students. This was the case for both English and Spanish. Similar patterns were observed within the two districts.

In fall 1985, achievers' language proficiency scores tended to cluster at low levels in English and low to moderate levels in Spanish. Spring 1986 tests showed movement toward moderate proficiency levels for English and moderate-to-high proficiency levels for Spanish. Underachievers, on the other hand, showed low ability in both languages in the fall testing. Nine months later, their English proficiency was still at a low level while their Spanish had improved moderately. Finally, language handicapped children's scores clustered at the lowest levels for both languages in the autumn. Their scores, however, *remained* at this same low level in the spring. These patterns are similar across the two school districts.

Pragmatic Criteria. Students displayed poorer communication skills (as measured by Damico's pragmatic criteria) as well as syntactical skills (as measured by DSS/DASG) in the English than in the Spanish conversation samples. This is not unexpected since English is the children's weaker language. Damico's (1985) criteria do not seem to distinguish between those LEP kindergarten children who are language handicapped and those who are normal in either English or Spanish, suggesting that these criteria may not be appropriate for kindergarten students.

Syntactical Analysis. The English syntactical criteria (as measured by DSS) did not distinguish among groups; however, achievers and underachievers exhibited a higher percentage of syntactically correct utterances in Spanish than language handicapped subjects. Language handicapped students' low syntactical scores in both English and Spanish may reflect the presence of a language disorder. A true language disability among students who are LEP is typically displayed through poor mastery of skills not only in English, but in their native language as well. In contrast, the fact that achievers, underachievers, and language handicapped students did not differ on their DSS scores may be attributed to their common lack of English proficiency.

Analyses completed to date suggest that an individual subject's language proficiency level, as measured by the LAS, is unrelated to the child's communication skills as measured by Damico's pragmatic criteria, and unrelated to his or her syntactical skills as measured by the DSS and the DASG. This suggests that different skills are being tapped by each of these measures.

Expected Outcomes/Anticipated Contributions

The expected outcomes from this research include (a) empirically supported recommendations to practitioners as to the best oral language measure, or combination of measures, to use in the diagnosis and placement of LEP students referred to special education; (b) the importance of assessing *relative* (English/Spanish) oral language proficiency for exceptional language minority students; (c) the relationship of various oral language assessment measures in English and Spanish to students' academic achievement; and (d) the rate of gain/loss of various aspects of LEP students' oral language in English and Spanish over time.

Issues in the Assessment and Analysis of Natural Language Samples

The need for further research on the use of clinical discourse analysis and pragmatic ratings of students' speech samples in the diagnosis of speech and language handicaps in bilingual children is already evident.

Elicitation Procedures. The procedures recommended by Damico (1985) require that the examiner be able to effectively engage the student in conversation. Achieving this type of interaction was found to be difficult with the kindergarten subjects involved in the first year

of the HMRI study. It is possible that the interviewers were not familiar to the subjects and that insufficient time was given to establishing rapport. The elicitation process, however, was difficult even when the examiner had had prior contacts with the students, as when the interviewer had conducted other assessments before attempting language sampling, or when the interviewer was the individual regularly assigned to the campus to do LAS testing. This suggests that age of the subjects may have contributed to the difficulty in engagement. These students averaged 6 years, 4 months (with a range of 5 years, 7 months to 6 years, 7 months) at the time of testing; Damico's pragmatic criteria were developed with much older subjects, ranging from 6 years, 7 months to 22 years, 3 months (Damico, 1985).

Alternative procedures for obtaining language samples should be explored, including, for example, using teachers or parents as interviewers or using pictures or manipulatives to elicit language production. The latter, however, may not constitute a natural "conversation," suggesting that alternative criteria may also need to be used or developed to evaluate language skills. In developing alternatives, caution must be exercised to assure that procedures have a high likelihood of being used by speech and language clinicians in typical school settings.

Criteria Selected. Damico has described 17 pragmatic criteria (Damico, 1985) but recommends using only 7 of these (Figure 1) to analyze language samples. Studies conducted by Damico and Oller (1980) and Damico et al. (1983) indicate that these 7 criteria contribute to a more accurate descriptive profile of a child's communicative difficulties. In analyzing children's conversations, one question which has surfaced is whether these 7 are the most effective in distinguishing normal from abnormal language acquisition. For example, a frequent behavior of the SLH subjects was that they failed to respond to interviewers' questions or comments. While delay before responding (DR) is one of the seven criteria, failure to respond is not. Consequently, perhaps significant pragmatic errors were missed in the analysis. Another example is that because linguistic nonfluencies (LNF) occurred so frequently across all groups, many students would qualify as handicapped on the basis of this criterion alone. It is likely that limited-English-proficient students, handicapped and nonhandicapped, lack fluency in English production and that the testing situation increases the students' dysfluencies in the native language as well. The category of LNF thus may not be an appropriate category for screening for possible handicapping conditions for this group of students.

Counting of Errors. Analysis of student performance is based on the number of utterances containing at least one error rather than on the total number of errors made by the subject in the conversation. Thus, there is no distinction made between an utterance that has one pragmatic error and one that contains multiple errors. The net effect is that this procedure may mask any differences between handicapped and nonhandicapped students and may make the language production of SLH students appear more normal.

Weighting of Errors. An additional concern is that the seven pragmatic criteria described by Damico (1985) receive equal weight although some types of error appear more serious than others (e.g., delays before responding versus inappropriate responses). Analysis by type of error must be conducted to determine whether some errors tend to be more characteristic of one group than another.

Time Involved in Analysis. Analysis of language using pragmatic criteria is very time consuming. Typically, a complete evaluation of children's conversational samples in English and in Spanish, including transcribing, editing, segmenting, and identifying and counting errors, requires approximately 15–20 hours. Since this may discourage use of the procedure, ways of streamlining the process should be explored. However, it is stressed that if results of this study support the use of pragmatic criteria for distinguishing normal from abnormal language acquisition, then time is better spent on assessment than on inappropriate intervention. This is particularly important given data indicating that, after initial placement, children are not usually reevaluated until 3 years later (Ortiz et al., 1985; 1986).

Codeswitching. Currently used assessment procedures, both discrete-point and pragmatic, assume that a child speaks English *or* Spanish. The speech of many of the subjects included codeswitching, the inter- and intra-sentential mixing of both languages: 3.8% of the utterances in the subjects' English language samples were mixed, and 9.93% of the utterances in the subjects' Spanish samples were mixed. Procedures for evaluating codeswitching using pragmatics must be developed.

Lack of Appropriate Assessment Instruments. Effective identification of handicapped Hispanics on the U.S. mainland continues to be hampered by a lack of appropriate assessment instruments. As the language minority population increases, this will become an even greater issue as districts struggle to achieve nondiscrimination in testing. Until such instruments are available, assessment personnel will be unable to distinguish handicapping conditions from linguistic difference using norm-referenced procedures.

Developmental Sentence Screening. The lack of data related to the acquisition of both English and Spanish language skills among LEP students becomes evident immediately when one attempts to describe the acquisition of grammatical and syntactical structures and to judge whether children's acquisition is within the developmental norm. Guidelines for conducting such analyses will be an important contribution of the present study.

Summary

Prelimary results of this research indicate that analysis of Hispanic LEP students' relative proficiency in English and Spanish provide an essential set of information for determining both the choice of assessment procedures and language in which to conduct assessments, as well as in the diagnostic/prescriptive process. For all educators of LEP children, the examination of students' mastery of both English and the home language would appear to be crucial to identifying the child's specific disability and for the planning of appropriate intervention. The research being conducted by the HMRI highlights the complexities of assessing the language skill of both normal and handicapped students from dual language backgrounds. This research effort also promises to increase the understanding of the interaction of language proficiency and exceptionalities and to provide helpful suggestions to the field for improving current practice.

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